

NPS-54-88-001

NAVAL POSTGRADUATE SCHOOL

Monterey, California



AMERICAN DEMOGRAPHIC TRENDS AND NATIONAL
SECURITY: ISSUES FOR THE 21ST CENTURY

MARK J. EITELBERG

February 1988

Approved for public release; distribution unlimited.

Prepared for: Naval Postgraduate School
Monterey, CA 93943

FEDDOCS
D 208.14/2
NPS-54-88-001

DUDLEY KNOX LIBRARY
NAVAL POSTGRADUATE SCHOOL
MONTEREY CA 93943-5101

Fiddlers
L 208.112.11P5 54-88-001

NAVAL POSTGRADUATE SCHOOL
Monterey, California

RADM. R. C. Austin
Superintendent

Kneale T. Marshall
Acting Provost

The research summarized herein was accomplished with resources provided by the Naval Postgraduate School.

Reproduction of all or part of this report is authorized.

This report was prepared by:

REPORT DOCUMENTATION PAGE

| | | | |
|---|-------|---|------------------------|
| 1a SECURITY CLASSIFICATION CLASSIFIED | | 1b RESTRICTIVE MARKINGS | |
| 2a SECURITY CLASSIFICATION AUTHORITY A | | 3 DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution unlimited. | |
| 4a CLASSIFICATION/DOWNGRADING SCHEDULE A | | 5 MONITORING ORGANIZATION REPORT NUMBER(S) | |
| 6a PERFORMING ORGANIZATION REPORT NUMBER(S) S-54-88-001 | | 7a NAME OF MONITORING ORGANIZATION | |
| 8a NAME OF PERFORMING ORGANIZATION Val Postgraduate School | | 6b OFFICE SYMBOL (If applicable) | |
| 9a ADDRESS (City, State, and ZIP Code) Box 54 Monterey, CA 93943 | | 7b ADDRESS (City, State, and ZIP Code) | |
| 10a NAME OF FUNDING/SPONSORING ORGANIZATION Val Postgraduate School | | 8b OFFICE SYMBOL (If applicable) | |
| 9b ADDRESS (City, State, and ZIP Code) Monterey, CA 93943 | | 9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER | |
| 10 SOURCE OF FUNDING NUMBERS | | 10 WORK UNIT ACCESSION NO | |
| PROGRAM ELEMENT NO | | PROJECT NO | |
| TASK NO | | WORK UNIT ACCESSION NO | |
| 11 TITLE (Include Security Classification) AMERICAN DEMOGRAPHIC TRENDS AND NATIONAL SECURITY: ISSUES FOR THE 21ST CENTURY (UNCL.) | | | |
| 12 PERSONAL AUTHOR(S) Mark J. Eitelberg | | | |
| 13a TYPE OF REPORT Final | | 13b TIME COVERED FROM TO | |
| 14 DATE OF REPORT (Year, Month, Day) February 1988 | | 15 PAGE COUNT 47 | |
| 16 SUPPLEMENTARY NOTATION | | | |
| COSATI CODES | | 18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number) | |
| FIELD | GROUP | SUB-GROUP | National Security |
| | | | Long-Range Forecasting |
| | | | Demographic Trends |
| | | | Defense Spending |
| | | | Military Manpower |
| | | | Military Effectiveness |
| 19 ABSTRACT (Continue on reverse if necessary and identify by block number) | | | |
| This report focuses on American demographic trends and speculates about the possible effects of these trends on national security over the next quarter-century. Four areas of interest are examined: (1) qualified manpower; (2) defense spending; (3) military effectiveness; and (4) international standing. The report concludes with a list of possible changes that could occur in these four areas by the year 2010. A "Note on the Canadian Experience" is also included. | | | |
| 20 DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS | | 21 ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED | |
| 22a NAME OF RESPONSIBLE INDIVIDUAL Mark J. Eitelberg | | 22b TELEPHONE (Include Area Code) (408) 646-3160 | |
| | | 22c OFFICE SYMBOL | |

[BLANK]

FOREWORD

This paper was commissioned by the Mobilization Concepts Development Center (MCDC), an arm of the National Defense University's Institute for National Strategic Studies. MCDC is chartered to provide analytical and research support on national resource issues to the Secretary of Defense, the Deputy Secretary of Defense, and the Chairman of the Joint Chiefs of Staff.

MCDC was asked by the bipartisan Commission on Integrated Long-Term Strategy (established in 1987) to study global demographic trends to the year 2010 and to assess the implications of these trends for U.S. national security. The demographic study, one of several efforts in behalf of the Commission, set out to "identify those emerging population developments that (a) pose an increased or diminished threat to U.S. or allied interests, (b) offer increased or diminished potential for violent conflict, or (c) alter regional and/or global distributions of power."

A "Global Demographic Trends" workshop was held on May 6-7, 1987 at Fort Lesley J. McNair, Washington, D.C., the home of the National Defense University. Ten working groups, representing the ten countries or regions defined for the study, convened during the first day of the workshop. An eleventh working group examined methodological or epistemological issues. The following persons participated as members of the working group on the United States and Canada: H. Wallace Sinaiko, Smithsonian Institution (and working group chairman); Martin Binkin, Brookings Institution; Robert L. Goldich, Congressional Research Service; Lawrence Long, Bureau of the Census; Col. Franklin C. Pinch, Canadian Forces; David R. Segal, University of Maryland; Signe I. Wetrogan, Bureau of the Census; and Mark J. Eitelberg, Naval Postgraduate School. Several themes in the paper benefitted from discussions held at this working group session.

This paper was completed in August 1987.

The views and interpretations expressed here are those of the author and should not be ascribed to any Government department or agency.

**American Demographic Trends and National Security:
Issues for the 21st Century**

-Contents-

| | Page |
|--|------|
| Foreword | 1 |
| Selected Demographic Trends | 6 |
| Implications for National Security: | |
| The Future May No Longer Be | |
| What it Used to Be | 10 |
| 1. Qualified Manpower: Baby Busters in Arms | 11 |
| 2. Defense Spending: How Much is Not Enough? | 20 |
| 3. Possible Issues of Military Effectiveness | 31 |
| 4. International Standing | 40 |
| Looking Ahead | 44 |
| Appendix: A Note on the Canadian Experience | 46 |

[BLANK]

AMERICAN DEMOGRAPHIC TRENDS AND NATIONAL SECURITY:
ISSUES FOR THE 21st CENTURY

"I know of no way of judging the future but by the past." Patrick Henry, 1775

"You can never plan the future by the past."
Edmund Burke, 1791

Predicting the future is a deadly art. Praise be to the person who can say "I told you so," the one who can delight in the event of a forecast come true. For every such person there must be a few million more who lament in silence, "Where did I go wrong?"

Predictions, projections, speculations, or educated guesses about the days, months, or years ahead are an essential part of the planning process. They provide a way of preparing for the likely or less likely future. Typically, the attempt to see ahead is based on experiences of the past, the only observation post available. In this way we are often led to assume that forces of the past will continue in similar fashion throughout the future. And here lies the great weakness of our ways: unexpected occurrences in science, politics, economics, and social relations--maybe but a single event--are capable of nullifying any set of prophetic assumptions, and usually do.

This paper focuses on American demographic trends and speculates about the possible effects of these trends on national security over the next quarter-century. Fortunately, a generation or so of demographic trends are somewhat easier to forecast than trends in other areas, such as the 1996 elections, next year's Dow Jones, or tomorrow's barometric pressure. (More than two-thirds of the U.S. population in 2010, according to some projections, have already been born.¹) Estimating the effects of

¹Bureau of the Census, Projections of the Population of the United States, by Age, Sex, and Race: 1983-2080, Series P-25, No. 952 (Washington, DC: Government Printing Office, 1984), p. 25.

these trends on national security is more problematical, since it requires considerable conjecture about future events in nondemographic areas.

This is one way of acknowledging, especially to readers of the coming time, that the present attempt to see ahead contains an appropriate share of mistaken assumptions. As Old Lodge Skins observed in the movie Little Big Man (1970), after failing to foretell the precise moment of his death, "sometimes the magic works, sometimes it doesn't." Perhaps the one sure prediction that anyone can make is that the unforeseen will always remain an unforeseen certainty.

Selected Demographic Trends

Several demographic trends are expected to influence the condition of national security over the next twenty-five years. These trends and related events are summarized below. A discussion of possible implications for national security follows.

o The United States population is projected to grow by approximately 40 million, reaching about 283 million in the year 2010. A population decline is expected to begin seven years later.²

o Although the population is now increasing, the United States has maintained a fertility rate for the past 15 years that is below the replacement level of 2.1 births (average) per woman. This has been characterized as a "birth dearth" and is common among the Western Alliance nations.³

²Ibid., pp. 77-78; and Bureau of the Census, Population Profile of the United States: 1984-85, Series P-23, No. 150 (Washington, DC: Government Printing Office, 1987), p. 6.

³See Ben J. Wattenberg, The Birth Dearth (New York: Pharos Books, 1987). It should be noted that the annual number of births is increasing as a result of the "echo effect" of the "baby boom." Since there are more women of childbearing age now, births have been rising--even though these women, on the average, have been bearing fewer children than did their predecessors.

o The population 18 to 24 years peaked in 1981 at 30.5 million--a total that may not be surpassed for at least the next 100 years. This "military-age" group will decline by around 7 million through 1996 and then gradually increase again to peak at around 27.7 million in 2010 (comparable to the population level in 1987).⁴

o From 1972 through 1984, the population of 19-year-olds exceeded 4 million each year, peaking at 4.5 million in 1980. For most of the 1990s, the 19-year-old cohort will number fewer than 3.4 million, about three-quarters the size of the 1980 level. In the year 2010, it is projected that there will be 3.9 million persons at this age, historically the median age of military recruits.⁵

o The U.S. population is aging: the median age nationwide was 31.5 years in 1985; in 2010, the median age is expected to be more than 5 years older, as the youngest members of the "baby boom" generation (born between 1946 and 1964) celebrate their 46th birthday. In 1985, there were 28.6 million Americans age 65 or older, representing just under 12 percent of the population. In 2010, the number of persons in this age group will be about 39.2 million, constituting close to 14 percent of the total population--with those 80 or older numbering almost 8 million more than in 1985.⁶

o Immigration may account for approximately one-fifth or more of U.S. population growth in future years. In 1980, it is estimated that 33 percent of the nation's growth was attributable to immigration.⁷ There is still much uncertainty about the future flow of immigrants, including both legal and undocumented aliens.

o In 1985, persons of Spanish origin or descent represented about 7 percent of the population. Middle series projections indicate that this may increase to 11 percent by 2010, with higher proportions in younger age groups (for instance, 13 percent of all 19-year-olds). The lowest Bureau of the Census projection for 2010 is 10 percent; and

⁴Bureau of the Census, Population Profile, pp. 6-7.

⁵Bureau of the Census, Projections of the Population, pp. 39-78. The modal age of new military recruits is currently 18 years.

⁶Ibid., pp. 43-44, 77-78. By the year 2030, the 65-and-older group will total about 65 million--one of every five people in the total population.

⁷Bureau of the Census, Population Profile, p. 4.

the highest projection is around 14 percent.⁸ Under varying assumptions, Hispanic persons could account for between 20 and 54 percent of U.S. population growth over the next 25 years.⁹

o By the year 2010, white non-Hispanic persons will represent between 68 and 73 percent of the U.S. population, compared with 78 percent in 1985, as the proportion of blacks, Hispanics, and Asians increases.¹⁰ The fastest growing minority group--Asian-Americans--is expected to increase from around 1.6 percent of the population to just over 3 percent by 2010.¹¹ (In that year, California alone will have as many Asian-Americans as there were in the entire U.S. during 1985.)

o The population of children within elementary school ages is expected to reach about 34 million by the turn of the century, an increase from 30 million in the early 1980s. This increase comes after a decline in elementary school enrollments that began in 1970 and continued for more than a decade.¹²

o There has been a rapid increase in the number of single parent families over the past several years--last tallied at 12.3 million in 1985, or about 1 out of every 5 families nationwide.¹³ It is estimated that 14.6 million children under 18 years of age--23.4 percent of the total--are now living with one parent.¹⁴

⁸Bureau of the Census, Projections of the Hispanic Population: 1983-2080, Series P-25, No. 995 (Washington, DC: Government Printing Office, 1986), pp. 19-21.

⁹Ibid., p. 19; and Thomas Exter, "How Many Hispanics?," American Demographics, May 1987, p. 38.

¹⁰Bureau of the Census, Hispanic Population, p. 20.

¹¹Leon F. Bouvier and Anthony J. Agresta, "The Fastest Growing Minority," American Demographics, May 1985, pp. 31-46.

¹²Bureau of the Census, Population Profile, p. 26; and Bureau of the Census, Projections of the Population.

¹³Bureau of the Census, Population Profile, p. 20.

¹⁴Ibid., p. 23. As noted here, there were 7 million fewer children below the age of 18 in 1985 than in 1970. However, in the same 15-year period, the number of children living with one parent increased by 6 million, and the number living with both parents declined by 13 million.

o In 1985, studies showed that 71 percent of women 18 to 44 years old were in the labor force. About 48 percent of new mothers (with a child 12 months or younger) were working, compared with a rate of 31 percent for new mothers in 1971.¹⁵ By 1990, it is estimated that 65 percent of all new job applicants will be women.¹⁶

o Educational attainment levels have been increasing among persons 25 years and over, and proportionately more for blacks than for whites.¹⁷ At the same time, there has been a remarkable decline in scores on widely-used tests of aptitude and scholastic achievement--including a drop in scores on the Scholastic Aptitude Test (SAT) that began in 1963 and apparently leveled off in the 1980s.¹⁸ Other researchers report massive IQ gains, ranging from 5 to 25 points, that have occurred over a single generation in 14 nations (including the United States).¹⁹

o In 1986, it was estimated that at least 12 percent of the population (28 million or more people) were alcoholics. Just under one-third of the nation's households (40 percent in the West) reported having someone at home with a drinking problem. The population between 18 and 20 years had the highest incidence of any age group in the nation: 44 percent claimed to be excessive drinkers.²⁰

¹⁵Ibid., p. 9.

¹⁶Government statistics cited in Anthony M. Casale, Tracking Tomorrow's Trends (Kansas City: Andrews, McMeel, and Parker, 1986), p. 56. Two-thirds of the labor force growth will be among women and one-fourth will be among blacks and other minorities, as observed in Department of the Army, I Am the American Soldier, USASSC-FC21-451 (Fort Benjamin Harrison, IN: Soldier Support Center, 31 October 1986), p. 6-4.

¹⁷Bureau of the Census, Population Profile, p. 28.

¹⁸Brian K. Waters, The Test Score Decline: A Review and Annotated Bibliography, Technical Memorandum 81-2 (Washington, DC: Office of the Secretary of Defense, August 1981); and Dianne C. Brown, Update and Analysis of Test Score Trends: 1959-1984, FR-PRD-85-13 (Alexandria, VA: Human Resources Research Organization, December 1985).

¹⁹James R. Flynn, "Massive IQ Gains in 14 Nations: What IQ Tests Really Measure," Psychological Bulletin 101 (1987): 171-191.

²⁰From Louis Harris, Inside America (New York: Vintage Books, 1987), pp. 60-61.

o Based on current levels of HIV infection (estimated at 1.5 million persons nationwide), the U.S. Centers for Disease Control expects 324,000 diagnosed cases of AIDS by the end of 1991--compared with about 35,000 in May of 1987.²¹ Other health experts forecast 400,000 diagnosed cases or more in the United States over the next 4 or 5 years.²² In 1987, about 1 out of 30 young-to middle-aged men were reported to be infected with the virus. By 1991, the disease is expected to rank behind accidents as the second-highest cause of "premature death" among men.²³ As of 1987, it was estimated that between 5 and 10 million persons world-wide were carrying the AIDS virus.²⁴

Implications for National Security: The Future May No Longer Be What It Used To Be

Trager and Simonie provide a useful working definition of national security:

National security is that part of government policy having as its objective the creation of national and international political conditions favorable to the protection or extension of vital national values against existing and potential adversaries.²⁵

The traditional instruments of national security policy are diplomacy, alliances, and military power--but also include economic assistance, technological research and development, propaganda and communications, psychological operations, as well as other means.²⁶ The military has held a special position

²¹Marilyn Chase, "AIDS Costs: In Lives and Dollars, The Epidemic's Toll is Growing Inexorably," Wall Street Journal, 18 May 1987, p. 1.

²²"The Staggering Price of AIDS," U.S. News and World Report, 18 May 1987, p. 1.

²³Marilyn Chase, "Ballooning AIDS Epidemic Poses Threat to Third World Stability, Official Says," Wall Street Journal, 3 June 1987, p. 34. Premature death is an actuarial figure based on life expectancy and measured in terms of years of productive life lost.

²⁴Ibid.

²⁵Frank N. Trager and Frank L. Simonie, "An Introduction to the Study of National Security," in National Security and American Society, eds. Frank N. Trager and Philip S. Kronenberg (Lawrence, KA: The University Press of Kansas, 1973), p. 36.

²⁶Ibid., p. 46.

throughout history as a tool for obtaining security objectives. In fact, "national security" is often perceived in practice as a shortened reference to "national military security," involving "the generation of national military power and its employment in interstate relationships."²⁷

The ability to generate national military power is influenced by a range of factors from the more practical, such as budgetary resources, to various normative elements. The present discussion concentrates on a narrow but critical area affecting the nation's military strength--namely, the military institution itself and the fulfillment of basic needs in its conventional forces. This approach is fragmentary at best, but should provide some perspective regarding the possible effects of demographic trends on the larger whole of national security.

The expected effects of demographic trends on the nation's military can be divided into four separate, but interconnected categories: (1) Qualified Manpower; (2) Defense Spending; (3) Military Effectiveness; and (4) International Standing.

1. Qualified Manpower: Baby Busters in Arms

During fiscal 1986, the Armed Forces admitted 308,571 new recruits. Over half of these new recruits were teenaged boys. Traditionally, the military's primary pool of manpower is young men in their late teens or a little older. Currently, slightly less than 9 out of 10 recruits are men, three-quarters of whom are no older than 20.

Because the military is so dependent on recruiting young people, particularly men--without the aid of a draft--defense officials have been greatly concerned for many years about the potential consequences of the "baby bust." As Fallows noted in his 1980 commentary on National Defense, "one of the central worries of military manpower planners is that they'll have

²⁷Klaus Knorr, "National Security Studies: Scope and Structure of the Field" in National Security and American Society, eds. Trager and Kronenberg, p. 6.

trouble recruiting enough soldiers in the middle and late eighties, when the cohorts of young people dwindle in size."²⁸

Indeed, no thoughtful treatment of military manpower issues published or presented over the last dozen years could avoid the topic. And few did. References to the impending disaster are innumerable, appearing in a wide assortment of material, from classified government briefings to pop commentary in the newsstand press. In the late 1970s, when all-volunteer recruiting waned, the "baby bust" issue surfaced with remarkable consistency in arguments for a return to the draft. The proponents of conscription had just cause for concern: recruiting results in 1979 and 1980 were among the worst ever since the draft had ended; and these were supposed to be the easy years, the years when the number of military-age "baby boomers" hit an all-time peak. If the all-volunteer effort suffered when the supply of available manpower was at its very largest, many asked, what would happen when the supply was at its very smallest?²⁹

The astonishing answer is that all-volunteer recruiting improved, and it kept improving with each passing year as the eligible population declined. A 1982 Department of Defense report observed with pride:

In FY 1981, the proportion of high school diploma graduates increased in all Services, and particularly

²⁸James Fallows, National Defense (New York: Random House, 1981), p. 138.

²⁹It is interesting to note that "the postwar baby boom, which produced a significant increase in the number of eighteen-year-olds between 1964 and 1979, had been a key consideration in early calculations about the feasibility of a draft-free armed force." See James L. Lacy, "Whither the All-Volunteer Force?," Yale Law and Policy Review V (Fall/Winter 1986): 50. Active duty personnel strength in 1979 and 1980 was at the lowest level since 1950.

in the Army. The DoD total of 81 percent represents an all-time high in the educational level of recruits.³⁰

Five years later, the proportion of new recruits with a high school diploma exceeded 91 percent, even though the military's target population had shriveled by more than 15 percent.³¹

In fact, the "baby bust" scare turned out to be the Comet Kahoutek of military manpower research: it was preceded by heavy fanfare, arrived with great anticipation, and has since traveled almost halfway through its course without so much as a fizzle. Nonetheless, the population decline still has a way to go before it bottoms out in the mid-1990s, and the supply of available manpower may never again reach the booming levels of the past.³² There is every reason to believe, as the manpower nosedive accelerates, that a final chapter in the all-volunteer saga is yet to be written.

Some analysts are quick to point out that the military-age population was much smaller in the 1950s than it will be at its lowest point in the years ahead. Furthermore, the post-Korean military was bigger than it is today--with over 1 million more enlisted personnel--requiring the services of one in every two draft-age men (at a time when women were virtually excluded).³³ The proportion of young Americans needed to fill the ranks during

³⁰Department of Defense, Profile of American Youth: 1980 Nationwide Administration of the Armed Services Vocational Aptitude Battery (Washington, DC: Office of the Assistant Secretary of Defense [Manpower, Reserve Affairs and Logistics], March 1982), p. 21.

³¹From Defense Manpower Data Center tabulations. See also P. J. Budahn, "Quality of Recruits Continues at Near-Record Rates," Navy Times, 15 June 1987, p. 2. During the first half of fiscal 1987, approximately 95 percent of all new recruits scored average or above on the Department of Defense enlistment test.

³²Based on estimates in Bureau of the Census, Projections of Population and other sources.

³³Richard Danzig and Peter Szanton, National Service: What Would It Mean? (Lexington, MA; Lexington Books, 1986), p. 78; and Department of Defense, Selected Manpower Statistics (Washington, DC: Government Printing Office, 1986).

the worst of the dearth, other researchers note, would be far below the levels of many previous years; and the available population would also retain a reasonable "surge capacity," if rapid mobilization were necessary.³⁴

The future of the all-volunteer military, Danzig and Szanton write, "will hinge on whether or not the volunteer system can meet future manpower requirements with recruits of reasonable quality."³⁵ The key words here are "reasonable quality," and the military's demand for highly qualified people places an added strain on draftless recruiting. The real question facing the all-volunteer effort is not whether the required quantity of manpower can be recruited--but whether the required quantity with the required qualities can be enticed to join. This could be a major problem in the years ahead, Binkin observes, "as the number--if not the technical abilities--of young Americans declines and the requirements for abler--if not more--military recruits grows."³⁶ Indeed,

given present trends in arms technology and demographics, by the early 1990s the nation's armed forces could be caught between a growing requirement for skilled people to operate and maintain sophisticated weaponry and a diminishing supply of youthful recruits capable of absorbing complex training.³⁷

This understanding is emphasized by the fact that only 3 out of every 4 young men nationwide could probably qualify, on the basis of their aptitude and education, for basic enlistment in the Army or the Navy. About 2 out of 3 men could qualify for the Marine Corps and even fewer could meet the standards for

³⁴Robert F. Lockman and Aline O. Quester, "The AVF: Outlook for the Eighties and Nineties," Armed Forces and Society 11 (Winter 1985): 171.

³⁵Danzig and Szanton, National Service, p. 78.

³⁶Martin Binkin, Military Technology and Defense Manpower (Washington, DC: The Brookings Institution, 1986), p. 80.

³⁷Ibid., p. 83.

enlistment in the Air Force. The proportion of eligible youths shrinks again when the failure rates for other entry criteria are applied: over 16 percent of young men meeting minimum aptitude requirements would be expected to fail the physical examination and another 3 or 4 percent would probably be rejected on moral grounds.³⁸ In addition, most jobs in the Armed Forces call for aptitude test scores that exceed the minimum scores for basic eligibility. Aptitude requirements in certain high-tech jobs would currently disqualify as many as 70 percent of the male population and almost 90 percent of all otherwise eligible women.³⁹

One manpower analyst has attempted to gauge the military's recruiting challenge by calculating the proportion of "qualified and available" men that would have to volunteer for active or reserve duty before age 23. Following one age group through time--excluding the unqualified and the "nonavailable" college population--Binkin estimates that about one-half of the remaining men will have to enlist for the Armed Forces to meet their planned recruiting objectives. In the early 1980s, the figure was 42 percent. By the early 1990s, the required proportion of "qualified and available" men is expected to grow to 55 percent, assuming there are no changes in the quality of personnel, the sex distribution or size of the force, and current levels of college attendance.⁴⁰

There are assorted approaches to calculating an individual's "availability" for voluntary service. There are also some analysts who say that everyone in the relevant population should be considered recruitable, that virtually anyone can be attracted to military life under the right circumstances. Methodology aside, the "qualified and available" statistic underscores the

³⁸Mark J. Eitelberg, Manpower for Military Occupations (Washington, DC: Office of the Assistant Secretary of Defense [Force Management and Personnel], Forthcoming).

³⁹Ibid., Technical Appendix.

⁴⁰Binkin, Military Technology, p. 81.

point that young people have varying levels of propensity to enlist; they have competing opportunities; and their plans for education or work may not involve wearing a uniform. Moreover, as the population continues to shrink, competition to fill vacancies will undoubtedly intensify between the military, colleges, and civilian employers--with each striving in new and imaginative ways to tap the traditional pool of persons "available" to the others.

The Department of Defense attributes recent successes in manning the force to "vigorous recruiting efforts, additional recruiting resources provided by the Congress, increased military pay and compensation, and higher youth unemployment."⁴¹ Many observers also believe that recruiting was helped by a positive change in public opinion toward the military, a "surge of national pride," a "reawakening of patriotism," or a similar shift in the mood of the country. Perhaps, even more important than any of these reasons was the simple fact that over time the Armed Forces became more experienced and more adept at operating in an all-volunteer environment. Through several years of trial and error, coming after three decades of compulsory service, the nation's lawmakers, defense policymakers, and uniformed leaders finally learned how to fill the military's ranks with able volunteers and how to keep them there.

A good illustration of the learning experience factor can be found in the recent history of the GI Bill. During the early days of the all-volunteer experiment, GI Bill educational benefits were more or less taken for granted as just another perquisite of military service. Even though survey data had shown that these benefits were an important lure for new volunteers, especially high school graduates with above-average test scores, there was never any formal effort made to highlight their existence. The GI Bill was generally viewed as a veteran's benefit, as compensation to draftees for lost time and for readjustment to civilian life. It also gave service members a

⁴¹Department of Defense, Profile of American Youth, p. 21.

reason for leaving the military, and was therefore described as a disincentive for reenlisting.

When President Ford announced the end of the Vietnam Era in 1975 and called for a cutoff of GI Bill benefits for new volunteers, the Armed Forces just began to realize what they had and what they were about to lose. But the die had been cast. Beginning in January 1977, the GI Bill was replaced with the comparatively meager Post-Vietnam Era Veterans' Educational Assistance Program (VEAP). By one estimate, the conversion from the GI Bill to VEAP accounted for a drop of between 5 and 10 percent in enlistments of male high school graduates over the following two years.⁴² Anecdotal evidence suggests that this estimate is fairly conservative.

Whatever the case, VEAP was ultimately modified and more generous benefits were extended to selected individuals out of necessity. VEAP itself has since been replaced by a "New GI Bill," while the Army and Navy have supplementary programs offering much larger entitlements. Today, there is recognition in all circles that educational benefits can be a very important attraction of military service; and, furthermore, these benefits can be targeted to specific markets of highly qualified youths. Anyone who watches television, reads popular magazines, or listens to rock radio, should know how the Army feels about its College Fund and how important it is to Army recruiting.

The military's chief rivals for young people, colleges and civilian employers of entry-level workers, have been watching, listening, and reading. Apparently, they have also been learning from the military's recruiting failures and successes. As Time reports, McDonald's now has a recruiting program called "McMasters" to entice older workers; Wendy's hamburger chain is

⁴²Martin Binkin, America's Volunteer Military: Progress and Prospects (Washington, DC: The Brookings Institution, p. 12); also see Richard W. Hunter and Gary R. Nelson, "Eight Years with the All-Volunteer Armed Forces: Assessments and Prospects," in Military Service in the United States, ed. Brent Scowcroft (New York: Prentice-Hall, 1982), p. 97.

offering cash incentives, college scholarships, and "career ladders" to its teenage employees; and other firms, once shy to advertise, are spending large sums of money to recruit baby bust workers.⁴³ An especially interesting example is the Boston Globe's "Paper Route to College" program--where boys and girls 12 or older can receive up to \$5,000 toward one year's tuition at college (with "added incentives") in return for three years of honorable service delivering newspapers.⁴⁴ The net effect of all this, as a population analyst observes, is that "baby busters will in general have more of a choice [in the job market] and better prospects for advancement than the previous generation."⁴⁵

Colleges are likewise "out hustling for freshmen in innovative ways."⁴⁶ One university is granting new students a tuition-free fifth year if they wish to explore fields outside of their major. Others are "stepping up recruitment and diversifying the population, catering to women, older people and part-timers."⁴⁷ At the same time, recruitment budgets at four-year colleges have increased by an average of 63 percent over the past seven years, with some colleges spending over \$1,000 a week on television advertisements alone. The more aggressive schools are now involved in "extensive marketing efforts," boosting their scholarship funds and expanding their marketing staffs to compete for students.⁴⁸

As the competition for baby busters intensifies, the military may have to step up its own recruiting efforts by augmenting its recruiting force and spending more on advertising-

⁴³"Welcome, America, to the Baby Bust," Time, 23 February 1987, pp. 28-29.

⁴⁴From full-page advertisement in Boston Globe, appearing in summer 1987 editions.

⁴⁵"Welcome, America," Time, p. 29.

⁴⁶Ibid, p. 28.

⁴⁷Ibid.

⁴⁸Ibid.

-especially so, if it intends to stay with its primary market of young men and remain an all-volunteer institution. In addition, the increased demand for young, inexperienced workers is likely to drive up the level of their wages relative to the average wage. Lockman and Quester estimate that the peak increase in real wages for men between the ages of 17 and 21 will occur in 1995, when these wages will be 10 to 12 percent above 1982 levels. This would be an expected reversal of the "baby boom effect" in 1967-75, when the real wages of young men fell by around 8 percent.⁴⁹

The projected increase in wages means that the military will have to press even harder to keep its pay levels comparable to the going rate in the civilian job market. Many manpower analysts see pay comparability as the key factor controlling the future of the All-Volunteer Force. "Advocates of the volunteer system," write Danzig and Szanton, "assert that as long as military pay is sustained at or near its present relation to civilian wages, the personnel now projected to be required for active duty likely can be drawn from volunteers."⁵⁰ However, as Lacy points out, active duty pay raises have not ranked high on the list of priorities held by either Congress or the administration for some time now; and this conscious neglect is not likely to be reversed before recruiting or retention begins to tumble:

Despite the dramatic catch-up raises in 1981 and 1982, the comparability of military pay to that of civilians is slipping again. Because of a 3 percent pay cap in fiscal year 1986 and 4 percent pay caps in each of the preceding three years, military pay now lags private sector pay levels by 8.3 percent, as measured by the Employment Cost Index. . . . However, the post-Gramm-Rudman Congress shows little inclination to boost

⁴⁹Lockman and Quester, "The AVF," p. 178; and Lacy, "Whither the All-Volunteer Force?," p. 55

⁵⁰Danzig and Szanton, National Service, p. 75.

military compensation by any significant amount in the near future.⁵¹

2. Defense Spending: How Much is Not Enough?

The President's Military Manpower Task Force concluded in 1982 that "the military compensation package must be kept at competitive levels to attract and keep the kind of people the [All-Volunteer Force] must have." This is particularly true, the Task Force emphasized, "when civilian unemployment rates go down and the competition for capable people intensifies."⁵² But pumped up pay or bonuses for enlistment and reenlistment, when combined with other defense expenditures, could put a serious squeeze on the federal budget; and, by the time these actions are taken, the federal budget may be squeezed dry.

The rapid defense buildup of the recent past, averaging \$46 billion a year, has apparently hit the proverbial wall. Historically, increases in defense spending have come to some extent at the expense of domestic social programs, and emphasis on social programs usually means less for defense. It is the traditional tradeoff between "guns and butter" when resources for each are limited. There are already indications that the cycle has started to shift again and that a combination of factors may soon force the nation to turn a few of its swords or ships into plowshares.⁵³ Spending for defense will be curtailed at the very least, possibly cut deeply over time, with the likely support of the American people and a Congress bent on reducing the federal

⁵¹Lacy, "Whither the All-Volunteer Force?," p. 54. Also, Robert F. Hale, "Congressional Perspectives on Defense Manpower Issues," Armed Forces and Society 11 (Spring 1985): 343-345; 352.

⁵²Military Manpower Task Force, A Report to the President on the Status and Prospects of the All-Volunteer Force (Washington, D.C.: Government Printing Office, November 1982), p. I-3.

⁵³The changing commitment to domestic social concerns can be tracked in thirty-year cycles beginning in 1901 with Theodore Roosevelt's ascendancy to President--followed by Franklin Roosevelt's New Deal program in 1932 and the Kennedy-Johnson era in the 1960s. This suggests that the next cycle will take form by the early 1990s.

deficit. The pressures to trim defense will also escalate over the next several years, driven largely by the demand for increased spending in social areas.

A good deal of the pressure will emanate from the needs of America's aging society. In fact, the nation's elderly currently receive a large percentage of the federal budget: 28 percent in 1985, almost double the share 25 years earlier. These expenditures also represent nearly half of all domestic program spending, or an estimated \$263 billion annually. Most of the money goes to Social Security, and about 23 percent of the total is spent on Medicare.⁵⁴

Federal expenditures for the elderly are expected to grow considerably over the next few decades, as the population of elderly Americans becomes both larger and older. Health care costs are expected to account for most of the growth for several reasons, including the fact that family and friends will be less likely to provide home care (due to the "birth dearth") and because fewer daughters will choose to stay at home rather than work. The generation of baby boomers--able to extend their life expectancy through advances in medicine and increased attention to diet and exercise--will be a healthy population of senior citizens but one that will still rely heavily on the medical care industry.

The longer-term problems of the elderly are signalled by present difficulties meeting the needs of this group and by the often-heard warnings about the collapse of Social Security. A recent report by the General Accounting Office points to at least one major program requiring help: the Hospital Insurance Trust Fund of Medicare, the federal health insurance program for the elderly and disabled, is expected to run out of money by the late 1990s.⁵⁵

⁵⁴General Accounting Office, An Aging Society: Meeting the Needs of the Elderly While Responding to Rising Federal Costs, GAO-HRD-86-135 (Washington, D.C.: Government Printing Office, September 1986), pp. 2, 14.

⁵⁵Ibid., p. 2.

Of all the uncertainties in this nation's future, there is probably nothing, barring nuclear war, more disturbing than the potential impact of AIDS. In 1986, more than 3 out of 4 Americans believed that AIDS would become a serious epidemic.⁵⁶ Officials in the Defense Department were also reported to be worried about a "possible catastrophe for the military":

The Pentagon's nightmare runs like this: AIDS continues to spread unchecked and infection among young American males reaches the 10 to 15 percent level syphilis attained early in World War II. Then a military crisis occurs requiring major mobilization. With the nation's manpower pool already shrinking for demographic reasons, the armed forces might be forced to take men regardless of health, as happened late in World War II, when 10,000 men a month with syphilis were being drafted. Penicillin and sulfa drugs proved effective against syphilis and gonorrhea then, but there is no cure for AIDS.⁵⁷

Most people would agree that this scenario is a little far-fetched, given current information on AIDS. In fact, the military's own testing of applicants for enlistment in 1985-86 revealed an AIDS virus infection rate of 1.63 for every 1,000 persons (including a rate of 0.61 for every 1,000 women). The highest infection rate for any one area of the country was found in New York City, where 20.3 men out of every 1,000 applying to the military tested positive for the AIDS virus. The rate for women in New York City was just a little below that of men at 17.4 per 1,000 applicants. Researchers also found sizable differences by race, with 3.89 of every 1,000 black applicants

⁵⁶Casale, Tracking Tomorrow's Trends, p. 42.

⁵⁷Peter Slavin, "The AIDS Threat," Army Times, 30 March 1987, pp. 49, 60.

nationwide testing positive, compared with 0.88 of every 1,000 whites.⁵⁸

These data may not paint an accurate picture of infection rates across the country, since military applicants do not represent a cross section of the general population or even of their own age group. Nevertheless, they do provide the first results of large-scale testing and a marker for measuring the future course of the disease. Testing of active duty members shows a rate of infection similar to that of recruits, at 1.6 of every 1,000 persons.⁵⁹

The most immediate impact of AIDS on the military will not come from the resulting depletion of manpower but from the rising costs of the disease to the nation as a whole. A recent study, endorsed by the Office of Technology Assessment, predicts that medical costs alone will grow eightfold, totaling \$8.5 billion by 1991. Research, education, and bloodscreening costs are expected to quadruple to \$2.3 billion. In addition, health economists forecast that indirect costs, coming from the lost wages and productivity of working-age people, could run as high as \$55.6 billion. These costs add up to \$66.4 billion--a staggering increase over the total economic cost of \$5 billion in 1985 and \$10 billion in 1987.⁶⁰

⁵⁸Approximately 300,000 persons were tested between October 1985 and March 1986 at 71 recruiting stations nationwide. Reported in "Test of Recruits Details Heterosexual AIDS Trend," Washington Post, 16 July 1987, p. 5; and Vesta Kimble, "AIDS Report Widens Army-DoD Policy Rift," Army Times, 27 July 1987, p. 24. In San Francisco, the rate for men was 11 out of every 1,000, and the rate for women was 10.9 out of every 1,000. In Washington, D.C., the rates for men and women per every 1,000 persons of the same sex were 10.7 and 7.3, respectively.

⁵⁹"Army Reports Results of AIDS Virus Study," Monterey Peninsula Herald (Associated Press), 16 July 1987, p. 1. It should be noted that each person in the military is expected to be a "mobile blood bank," if needed.

⁶⁰Paul Blustein, "Public Spending on the Epidemic Will Exceed \$1 Billion This Year," Wall Street Journal, 18 May 1987, p. 20; and "The Staggering Price of AIDS," U.S. News & World Report, 15 June 1987, pp. 16-18.

Some health economists think these estimates are far too conservative. A Rand study, for example, projects that AIDS treatment costs will total more than \$37 billion cumulatively over the 1986-91 period, possibly reaching as high as \$112 billion. During the same period, Medicaid's share of the costs could run from \$10 billion to \$47 billion; employers could wind up paying \$14 billion in health care benefits; and payouts by companies on life insurance policies could be similarly steep.⁶¹

Already, there is evidence that Congress is responding to AIDS by creating new programs in research, education and prevention, and health care through Medicaid and Medicare that will add billions of dollars to the government's annual outlay.⁶² The "ballooning AIDS epidemic" throughout the world may also affect the U.S. economy in other ways by creating a compelling need to provide increased assistance to struggling nations. The World Health Organization, for example, expects "a surge in cases of acquired immune deficiency syndrome that could destabilize the political and economic systems of the Third World."⁶³

Ultimately, the costs of AIDS and costs of caring for the elderly will compete with the rising costs of defense. Other domestic social programs will likewise be looking for scarce federal dollars, and each will have its own powerful constituency of supporters. The needs of these programs will also be influenced by the changing demography of the country: in particular, by increasing immigration, by increasing proportions of minorities, by increasing numbers of school-age children, by the redistribution of urban-area residents, by the increasing

⁶¹"The Staggering Price," U.S. News & World Report, pp. 16-17.

⁶²Blustein, "Public Spending," p. 20.

⁶³Chase, "Ballooning AIDS Epidemic," p. 34. NIH officials have estimated that 5 to 10 million people may be carrying the AIDS virus worldwide--and that between 1 and 2 million could die in the "global pandemic" over the next 10 years. See Marilyn Chase, "Politics Overshadows Scientific Concerns at Major Washington AIDS Conference," Wall Street Journal, 2 June 1987, p. 5.

employment of women with young children, by the "birth dearth," and by numerous other population trends. The net effect of these trends will be a Congress and an American electorate less willing to support any sort of defense buildup without a clear demonstration of necessity.

In 1980, a Harris survey found 71 percent of the American people favoring an increase in defense spending. By 1983, Harris found just 14 percent of the population in favor of increased defense spending, a level of support confirmed again by a Gallup survey in 1986. (This approximated the small percentage of American people favoring an increase in defense spending at the close of the Vietnam War.)⁶⁴ In addition, when people were asked in a recent survey to decide where they thought budget cuts should be made, a vast majority pointed to defense: on a structured list, defense cuts were preferred over cuts in farm price supports, aid to college students, social security, health and nutrition programs, Medicare, Medicaid, veterans' benefits, toxic waste cleanup, aid to education, civilian retirement benefits, and aid to cities. In fact, on this particular question, defense was the runner-up favorite for budget-gashing, second only to pay increases for federal workers--and just by a narrow margin at that.⁶⁵ Harris writes:

Clearly, the bloom was off defense spending as far as the American people were concerned. Congress finally got the word in 1986, and it finally became unlikely that defense spending would any time soon again enjoy

⁶⁴Harris, Inside America, p. 343.

⁶⁵Ibid, pp. 345-346.

its special position of the late 1970s and early 1980s.⁶⁶

Of course, attitudes toward defense spending could change just as quickly as a ship is sunk or an embassy is seized or an ally is roughed up. But the prevailing opinion, barring national crisis, will probably continue to downgrade the comparative needs of defense in favor of social programs for the duration of the current "guns vs. butter" cycle. Indeed, in 1987 the President was said to be facing a "showdown with Congress over the federal budget deficit" because of Congressional actions to raise taxes, cut the military, and keep reductions in social programs to a minimum.⁶⁷

Defense spending cuts, or even a freeze in spending, could do a lot of damage quickly to military recruiting and create a gradual braindrain in retention. The military's personnel area is likely to be sacrificed, as Lacy observes, if it comes down to "cutting, delaying, or stretching out major equipment programs that already have been approved or partly acquired."⁶⁸ Simply put, personnel items are the easiest to carve out of the defense budget; and they present a large and helpless target to quickly alleviate pressure for reductions. The possible effects of a spending cut on recruiting should be clear from the discussion of manpower issues above. The possible consequences for personnel retention could be equally severe, and exiting careerists,

⁶⁶Ibid; p. 346. A survey conducted for USA Today had similar results. "Reducing the federal deficit" ranked first among the "most important problems for government to solve." At the same time, "national defense" ranked 11th out of 13 possible choices for "the most important places for the federal government to spend our money." See Casale, Tracking Tomorrow's Trends, pp. 210-211. Oddly enough, several surveys also show that the military itself is currently "the most trusted institution in America." See Steve Warrick and P. J. Budahn, "Americans Trust Military Most, Polls Show," Navy Times, 2 February 1987.

⁶⁷Jeffrey H. Birnbaum, "Reagan Faces Deficit Showdown With Congress, Hard Choice of Paring Military or Raising Taxes," Wall Street Journal, 16 July 1987, p. 56.

⁶⁸Lacy, "Whither the All-Volunteer Force?," p. 55.

trained and experienced in defense technology, are difficult to replenish.

Personnel-related programs currently make up around 44 percent of the defense budget, and there is already a proposal to trim active duty strength by 3.5 percent.⁶⁹ Probably no Service is more concerned about strength reductions (or merely a cutback in planned growth) than the Navy. With dozens of new ships entering the fleet over the next several years, Navy officials worry that there may not be enough sailors to run them. And a shortage of personnel for the Navy, they say, could set off the "death spiral":

Experienced seamen must spend longer rotations at sea, worsening the problems of family separations and low morale. Inexperienced seamen are given technically complex tasks aboard ships and costly equipment is broken or poorly maintained.⁷⁰

The end result is that capable officers and enlistees become overworked, frustrated, and unhappy. They shuck their uniforms for a civilian job and the personnel problem worsens, steaming on and on at accelerating speed.

Disenchantment with military life is an occupational ailment not unique to sailors, and the separate Armed Forces may each expect to face new obstacles in their endless attempt to retain good people. The source of the retention problem is suggested by the old saying: "The military enlists individuals but it reenlists families." Although the Armed Forces have taken great strides over the recent past to upgrade the quality of military life for families, even more effort will be required in the future.

⁶⁹John Burlage and Rick Maze, "Trost Warns Hill About New Personnel Turmoil," Navy Times, 23 February 1987.

⁷⁰Tim Carrington, "Navy Frets That Its Growing Fleet May Founder for Lack of Sailors in Climate of Budget Cutting," Wall Street Journal, 18 March 1987. Some claim that the "death spiral" has already been set in motion.

This speculation comes from the understanding, as Segal notes, that both the military and the family are "greedy" institutions--both place great demands on individuals in terms of commitments, loyalty, time, and energy.⁷¹ At the same time, the military is highly unusual in the pattern of demands it requires of its members and their families, including risk of injury or death for the service member, geographic mobility, periodic separations, residence in foreign countries, normative pressures, and related obligations of service life.⁷² The interaction of the military and the family has required that each adapt in some respect to the other, each giving in and making certain concessions. From the military side, this has meant recognition of family issues in its personnel policies as well as the provision of basic family support services. So far, reenlistment statistics suggest that the union of the military and the family is working--but population trends, coming in a climate of defense cuts, could make the military family a little too "greedy" for the happy union to endure.

When the last draft was abolished, significant changes took place in the demographic character of the force. One conspicuous change was an appreciable increase in the proportion of married personnel: in 1967, 39 percent of enlisted personnel were married, rising to 47 percent in 1970, 50 percent in 1972, 53 percent in 1974, and 58 percent in 1978.⁷³ A survey conducted in 1985 showed that a total of 60 percent of enlisted personnel were married, with higher proportions in the upper pay grades: 30 percent of enlistees in the lower pay grades were married, compared with 60 percent in the middle grades, and 90 percent in the higher pay grades. Approximately 70 percent of officers were married in 1985. In addition, about 60 percent of the military's

⁷¹Mady Wechsler Segal, "The Military and the Family as Greedy Institutions," Armed Forces and Society 13 (Fall 1986): 9.

⁷²Ibid., p. 15-23.

⁷³Ibid., p. 25.

officers and 43 percent of enlisted personnel reported having both a spouse and children in their household.⁷⁴

As a result, the military finds itself forced to reckon with child care facilities, the problem of uprooting families (and the toll it takes on school-age children and a working spouse), the general environment for families, dependent housing and education, family health care, and family services such as legal advice, family counseling, financial assistance, family advocacy (for family violence), relocation assistance, and so on. Family patterns that are taking place in the general society--such as growing numbers of school-age children, the increasing presence of dual-income families (and the phenomenon of dual-service couples in the military), and the mounting number of single parents--are reflected in the military. The "growing family role of men" is also seen as the source of great problems by personnel officials, who have been watching steadily climbing numbers of qualified men leave the military because of family separation and frequent moves.⁷⁵

These family patterns and the continually increasing demands placed on the military are certain to affect the personnel portion of the military's budget because "married members and their families are heavy consumers of services and benefits",⁷⁶ and because "the quality of military spouse and family life is important in itself and in its consequences for such key areas of

⁷⁴Mary Ellen McCalla et al., Description of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985 (Arlington, VA: Defense Manpower Data Center, October 1986), pp. 54-58.

⁷⁵James Gerstenzang, "Men's Growing Family Role Creating Problems for Navy," Monterey Peninsula Herald (L.A. Times Service), 19 May 1986, p. 2.

⁷⁶*Ibid.*, p. 54.

military concern as the retention of military personnel."⁷⁷ Consider, as well, the following cost comparisons: the Department of Defense estimates that the pay and allowances necessary to sustain a married Army sergeant come to \$20,300 a year, about \$5,000 more than an unmarried sergeant; and, when the married sergeant is transferred, the government will have to spend an average of \$3,200 to move him or her along with spouse and family--compared with \$750 in average moving expenses for the single sergeant.⁷⁸

The resource issue has looked fairly bleak for quite awhile; in fact, the outlook is so gloomy that it has prompted renewed discussion of a return to conscription--for the primary purpose of reducing military personnel costs.⁷⁹ The puzzling aspect of these proposals is that, along with social costs and economic spillover effects, "most military manpower planners predict that personnel costs actually would increase if the U.S. returned to a draft."⁸⁰ Others in Congress and elsewhere have suggested that a military draft be made part of a larger program of compulsory national service, the full costs of which have never actually been determined.⁸¹

⁷⁷Janet D. Griffith, Zahava D. Doering, and Bette S. Mahoney, Description of Spouses of Officers and Enlisted Personnel in the U.S. Armed Forces: 1985 (Arlington, VA: Defense Manpower Data Center, November 1986), p. 153. In this light, about one-third of enlisted men's wives said that their husband's military job interfered with their employment. The figure was higher for the wives of officers. (See *ibid.*, pp. 102-105, 119.)

⁷⁸Richard Halloran, "Women, Blacks, Spouses Transforming the Military," New York Times, 25 August 1986.

⁷⁹During the past year, there have been numerous calls for a return to conscription or some form of national service. Many arguments to bring back the draft are based on the premise that compulsory service can reverse the spiraling cost of defense. See, for example, Rick Maze, "Draft Will be Weighed in Cost-Cutting Debate," Army Times, 10 February 1986, p. 4.

⁸⁰*Ibid.* In addition, see Syllogistics, Inc., The Differential Budget Costs of Conscription-Based Alternatives to the All-Volunteer Force (Springfield, VA; Syllogistics, Inc., 23 July 1986).

⁸¹"Enlisting with Uncle Sam," Time, 23 February 1987.

3. Possible Issues of Military Effectiveness

The most important issue of military effectiveness will stem from the problem of defense spending, as suggested above. Other issues directly related to demographic factors include the possible consequences of changes in the composition of military members and the readiness of manpower for rapid mobilization.

Several changes in the composition of the active duty force are expected to occur as the military attempts to meet the challenge of its declining manpower pool and continues to reflect the demographic trends taking place across the country. One particularly noteworthy change has been the "graying of the military," as Binkin writes:

Hence the military force fielded by the United States in the mid-1980s is the most senior in the postwar period, and if recent retention rates persist, the force will continue to age in the future, with the most conspicuous growth occurring in the proportion of people with ten or more years of service. By fiscal 1990, it is estimated, about a third of the enlisted force will fall into that category, up from about a fourth in fiscal 1984.⁸²

The troublesome element of this trend is that it was not well-managed. The force has not become more experienced in critical areas. It is not necessarily wiser, just older: ". . . too many individuals have been retained in unskilled or semiskilled occupations for which experience may not be worth the cost, thus expending resources that could be used as incentives to retain more personnel in highly skilled jobs for which experience is more relevant."⁸³ In short, more senior people require higher salaries and allowances and they are more likely

⁸²Binkin, Military Technology, p. 128.

⁸³Ibid.

to be married and have families to support.⁸⁴ These costs can be offset by increased productivity and experience in highly technical areas, but, overall, the evidence suggests they are not.⁸⁵

The composition of the force is further expected to change with respect to its total proportion of racial or ethnic minorities. Specifically, as blacks, Hispanics, and Asians continue to form a larger part of the manpower pool, researchers predict that their levels of representation in the military will similarly grow. This expectation also derives from the understanding that minorities may be available to the military in relatively greater supply, since their opportunities in higher education and in the civilian job market tend to trail those of whites.

A marked increase in the participation of minorities could affect the military in many ways. The disproportionate representation of certain groups in the American military also raises questions of equity and legitimacy that are firmly rooted in the nation's guiding principles. A complete discussion of these issues is beyond the scope of this paper.⁸⁶

⁸⁴The Congressional Budget Office projects that "seniority growth" in the enlisted force will raise real personnel costs by as much as \$2.8 billion between 1988 and 1992. It is further estimated that the aging factor could add an average of between \$450 million and \$880 million per year to personnel costs in 1991 through 1994. See Congressional Budget Office, Setting Personnel Strength Levels: Experience and Productivity in the Military (Washington, DC: Congressional Budget Office, September 1987).

⁸⁵A recent study by the Congressional Budget Office (reported in *ibid.*) attempted to measure the effects of seniority growth on productivity. The analysts found that the necessary data were limited and the results were therefore considered inconclusive.

⁸⁶See Martin Binkin and Mark J. Eitelberg; with Alvin J. Schexnider and Marvin M. Smith, Blacks and the Military (Washington, D.C.: The Brookings Institution, 1982.)

One area of concern involves the fact that minorities may wind up dying in disproportionate numbers during the initial stages of a conflict. For example, if the United States were to become involved in a low-intensity conflict this year, it is likely that the 20 percent casualty rate of blacks that provoked charges of racial genocide in the early stages of the Vietnam War would appear small. If black casualties were simply proportional to the number of blacks in the Army's enlisted ranks, one out of every three Army combat deaths would be that of a black soldier. This particular estimate should be considered the lower bound, since black casualties in the opening days of a military engagement will more likely reflect the proportions of blacks in specific units assigned to combat--which, in most cases, are higher than their overall rate of representation. (In 1983, blacks accounted for more than half the strength of some combat battalions.)

There is another aspect of minority participation in the military that seems to capture the imagination of defense observers from one generation to the next throughout history. It is the notion that certain groups of people in the American melting pot hold ethnic or racial group loyalties that may prevail over their sense of being an American or their willingness to support the country. Indeed, the absorption of immigrants into mainstream culture has been achieved historically through the "blood test"--you proved you loved America through allegiance and sacrifice and by paying the "price-in-blood" in battle. And so, the "fighting Irish" died in droves during the American Civil War; Polish-Americans accounted for over 12 percent of the nation's casualties in World War I, though they constituted just 4 percent of the U.S. population; and Japanese-Americans, assigned mostly to the legendary 442nd Regimental Combat Team, "fought with a vengeance" in the Second World War, earning more than 18,000 individual decorations for valor.⁸⁷

⁸⁷Michael Novak, The Rise of the Unmeltable Ethnic (New York: Macmillan, 1972), pp. xxi-xxii; Victor Hicken, The American Fighting Man (New York: Macmillan, 1969), p. 365; and Binkin and Eitelberg, Blacks and the Military, pp. 25-38.

Doubts about loyalty and patriotism have been pinned on blacks throughout the history of this country, and some of these views are still held today. The race riots of the 1960s and the emergence of black militancy have helped to preserve and strengthen this public perception in modern times. As the war raged in Vietnam, some black leaders at home spoke of the racist policies of the Selective Service System and the genocidal master plan pitting black soldiers against the people of another colored race. At the same time, as Newark, Detroit, Watts, and the nation's capital witnessed violent unrest, black militants cried "burn, baby, burn" and rumors quickly spread throughout the inner cities that "brothers" were shipping disassembled M-60 machine guns from Saigon in boxes marked "stereo equipment."

Wartime adversaries were said to have preyed upon the supposed embitterment and smoldering hostility of black troops by reminding them of their troubles at home and promising them a better life. As recently as 1985, the tactic was tried by Libyan leader Moammar Khadafy, who urged black U.S. servicemen to leave the military and establish their own, separate army. "This country [the United States] must be destroyed," Khadafy said in a speech to a Nation of Islam conference. "They [whites] refuse to accept you as American citizens. This means you are obliged to create a separate and independent state. The whites force you to do this by refusing you in political and social life."⁸⁸

This particular line of thinking--that blacks are somewhat less patriotic than whites and that a wedge of racial divisiveness can be driven through the nation's fighting force--is understandably offensive to members of the white, as well as black community. More to the point, suspicions are raised that black troops might be unwilling to carry out their assignments in certain domestic situations, such as a ghetto riot or other civil disturbance. These suspicions were, in fact, supported by an

⁸⁸"Khadafy Urges Black Servicemen to Form Separate Army in U.S.," Monterey Peninsula Herald (Associated Press), 26 February 1985, p. 3.

actual incident involving the "Fort Hood 43," a group of black soldiers of the Army's 1st Armored Division at Fort Hood, Texas, who refused to deploy for riot duty at the Democratic National Convention in Chicago in 1968.⁸⁹

Similar fears of divided group loyalties kept the British government from sending Irish regiments into Northern Ireland during the 1970s. It has also influenced Soviet manning policy--seen in the key principle of "extraterritoriality"--where Soviet soldiers are not allowed to serve in their native regions but are stationed in geographically and ethnically different outposts.⁹⁰

When the U.S. took military action in the Dominican Republic in 1965, rebel forces tried to persuade black American soldiers to "turn your guns on your white oppressors and join your Dominican brothers."⁹¹ They did not. But no matter: what has been in the methods of U.S. adversaries has also been in the thoughts and concerns of some white Americans. A chairman of the board of the NAACP has characterized the loyalty issue as a "smokescreen thrown up by more subtle, sophisticated racists."⁹² Racist or not, the running current of mistrust has survived two centuries of wartime tests and life in America's melting pot, and it lives on today.

With an increase in Hispanic participation expected over the next two decades and the threat of American involvement in Central America, the focus of attention for questions of loyalty

⁸⁹The group included 26 Vietnam veterans. An Army official was quoted as saying, "The problem is so fearful that we won't even discuss these people as Negroes." Reported in Time, 13 September 1968.

⁹⁰S. Enders Wimbush and Alex Alexiev, The Ethnic Factor in the Soviet Armed Forces, R-2787/1 (Santa Monica, CA: Rand, March 1982), p. 12; and "The Red Army," World No. 404, Public Broadcasting Station (PBS) WGBH, 6 May 1981.

⁹¹Charles C. Moskos, Jr., The American Enlisted Man (New York: Russell Sage Foundation, 1970), p. 130.

⁹²"All-Vol Critics Accused of Racism," Army Times, 1 August 1980.

has recently shifted to Hispanic subgroups. The fears of some are fueled by the fact that, on the average, Hispanics have thus far "shunned" the all-volunteer military;⁹³ they represent the largest and most recent group of immigrants and generally maintain close cultural, linguistic, and generational ties to their homeland; and "as descendants of a conquered people, [Hispanic immigrants] have a better reason than most minorities to look beyond U.S. national boundaries when seeking to confirm an ethnic identity."⁹⁴ Moreover, a sense of "hemispheric solidarity" may ultimately drive persons of Spanish origin to define their political role by actively espousing Mexican or Latin American causes in the United States.⁹⁵

The last point was pressed home in 1986 when thirty California National Guard troops were sent to Honduras to act as interpreters for a Missouri Guard engineering unit that was building a road near Nicaragua. Leaders of four Latino groups protested the use of Spanish-speaking soldiers in Central America, calling it an "outrage and an affront to us as a people." A spokesman for the League of United Latin American Citizens said his organization opposed military intervention in Central America and predicted that "as this country becomes

⁹³Rick Maze, "Services Study Why Hispanics Shun the Military," Navy Times, 30 April 1984. It also bears noting that "Hispanic-Americans have defended our nation with pride and courage," as described in Department of Defense, Hispanics in America's Defense (Washington, DC: Office of the Assistant Secretary of Defense for Equal Opportunity and Safety Policy 1983). Hispanic-Americans as a group have a remarkably high share of Medal of Honor recipients--37 in all. See, for example, Raul Morin, Among the Valiant (Alhambra, CA: Borden Publishing Company, 1966); and W. H. Harris, Puerto Rico's Fighting 65th U.S. Infantry (San Rafael, CA: Presidio Press, 1980).

⁹⁴Irene F. Rothenberg, "The Panama Canal Issues and the Reagan Campaign: Reflections from 1976 and Projections for 1980," Journal of Ethnic Studies 7 (1980): 44.

⁹⁵Irene F. Rothenberg, "Mexican-American Views of U.S. Relations with Latin America," Journal of Ethnic Studies 6 (1978): 73.

involved in that part of the world, . . .there will be a lot of resistance within our own community. . . ."96

"In one way or another," states Griggs, "every minority in the U.S. has had to face the contradiction of having to fight for a country whose armed forces and whose society at large is marked by racist practices."97 Yet, aside from a few scattered incidents, the fear of disloyalty or sedition has no basis of fact in American history. If anything, it is the feeling of mistrust and the drive to overcome it that has propelled members

96 "Latinos Protest Use of National Guard," Monterey Peninsula Herald (Associated Press), 1 May 1986, p. 15. In 1984-85, there were expressions of protest in Puerto Rico regarding the use of Puerto Rican National Guard troops in training exercises in Central America. A scholar recalls the "significant role Hispanics played in the U.S. invasion of the Dominican Republic in 1965" and the ensuing effects: "Many Chicano participants of this tragic affair were to suffer pangs of consciousness and shame. . . . Some of my own personal acquaintances never recovered from the shock of recognizing, Oedipus-like, that it was they who had shed the blood of their own." See Professor J. Jorge Klor de Alva, "Hispanics in the U.S. Armed Forces: Opportunism or False Consciousness?", State University of New York at Albany, unpublished, n.d.

In May of 1987, an Air Force sergeant, assigned to an elite reconnaissance flight team monitoring radio signals along the Nicaraguan border, became the first U.S. servicemember to refuse military duty in Central America. The sergeant, a Mexican-American, said "I felt like I was making war on my own people," when he filed for a discharge as a conscientious objector. See Kenneth W. Grundy, "Soldier Refuses to Make War on His Own People," Atlanta Constitution, 4 August 1987, p. 15.

97 Anthony Griggs, "Minorities in the Armed Forces," Race Relations Reporter 7 (July 1973): 13.

of suspected groups to prove their patriotism through exemplary service.⁹⁸

The other side of the Hispanic issue, the positive side, is presented by the Army's Hispanic Policy Study Group in a 1986 report. The Study Group suggests that the Army will need a "bilingual/bicultural capability" to effectively pursue low intensity conflict in Latin America. "Bilingual capability is a force multiplier in low intensity conflicts," the Study Group points out. Furthermore, the Army will require "leadership capable of coordinating effectively with Latin Americans" and Hispanic-Americans "constitute a subset of the leadership required." For these reasons, "Hispanic-Americans constitute a tremendous bilingual national resource that has yet to be tapped"--and, since policy concerning their participation is an important readiness issue, the Army should actively recruit "Spanish-dominant Hispanics" for enlistment.⁹⁹

Racial and ethnic group representation in the American military is an emotionally charged topic and frequently captures attention in the public media. In fact, it is a subject that surfaces with almost automatic regularity in many critical discussions of all-volunteer recruiting. Only recently, however, have writers on defense manpower issues uncovered a truly critical question--namely, whether emerging technologies have

⁹⁸Yet, researchers have recorded a disturbing rise in the percentage of American people, particularly minorities, who feel "alienated" from the rest of society. For example, Lou Harris recently found that 70 percent of blacks feel "alienated," according to an index measure--compared with a level of 33 percent 20 years ago. See Harris, Inside America, p. 38. In addition, analysts estimate that the economic gap between the rich and the poor in America (based on the distribution of wealth) may be wider now than in the past 40 years. Some forecasters anticipate a growing rift between social or economic classes in the United States and increasing expressions of resentment by the general group of "have nots."

⁹⁹Guillermo H. Barbosa, Wayne Gosnell, and Consuela Evans, The Latin American Challenge and Army Hispanic Soldier Policy (Washington, D.C.: Office of the Assistant Secretary of the Army [Manpower and Reserve Affairs], 18 February 1986), pp. 2-3.

pushed military hardware beyond the capabilities of people, all types of people, that the Armed Forces can expect to attract and retain.¹⁰⁰ A reporter writes:

As the Defense Department approaches the \$2 trillion mark in its arms buildup, the services confront the problem of manning the battlefield of the 21st century with ordinary soldiers, sailors and airmen with the high-technology hardware. . . . Although the problem of matching troops to equipment has dogged the nation's military for years, the challenge has taken on serious new ramifications with the emphasis on sophisticated weaponry and a dwindling supply of potential young recruits.¹⁰¹

"For years," another journalist observes, "the arms industry has thrived by throwing more gadgets into weapons, impressing the generals with high-tech razzle-dazzle."¹⁰² Now, battlefield planners have nightmares that their combat troops will go to war armed to the teeth with ultra-sophisticated, microelectronically-loaded "smart" weapons--that don't work or take a genius to operate--only to be defeated by an enemy shooting arrows.

Battlefield planners also feel uneasy about the wartime preparedness of the new, family-oriented volunteer force. It has been suggested, for instance, that married service members, stationed far from home in a remote war zone, may be adversely affected by their concern for the safety and well-being of their families.¹⁰³ At the same time, with growing numbers of dual-income families and dual-military career couples, any deployment

¹⁰⁰Binkin, Military Technology, provides an excellent overview of the problem and summary of the policy options.

¹⁰¹Molly Moore, "U.S. Troops Find Weapons Too Complex," Washington Post, 23 August 1986. This article closely parallels Binkin, Military Technology.

¹⁰²John H. Cushman, Jr., "Making Arms the Fighting Man Can Use," New York Times, 21 June 1987.

¹⁰³Gerstenzang, "Men's Growing Family Role"; and McCalla et al., Description of Officers and Enlisted Personnel, p. 54.

or mobilization will send service members scrambling to find child care. Manpower officials are inevitably driven to ask: "When the balloon goes up, who'll watch the kids?" In a 1985 survey, 15 percent of enlisted personnel and 6 percent of officers said that they had no workable long-term care arrangements for their dependents. For both officers and enlisted personnel, the availability of dependent care was the most important obstacle faced in responding to changes in working hours, base recall, or a unit deployment. Indeed, in this survey, only 54 percent of enlistees said that they definitely had "workable day care arrangements" for their children during an extended unit deployment; and just 68 percent claimed to have a definite arrangement worked out in the event of a shorter-term exercise.¹⁰⁴

4. International Standing

"A nation cannot be a great power unless it has a large population," Wattenberg writes in The Birth Dearth.¹⁰⁵ He explains:

Larger populations produce a larger gross national product. And brute economic production is one critical aspect of national strength and security. Larger populations can build more easily the infrastructure of industry, transport, communications--all of which support national defense. . . . Attaining technological leadership requires collecting a large critical mass of scientists. Only a large consumer market can support much industrial scientific innovation, which often spins off into the military field. Only a large society can tax its people enough to finance major research and development directly for the military. And, of course, a large society makes it easier to provide the manpower for the Army, Navy, Marines, and Air Force.¹⁰⁶

¹⁰⁴McCalla et al., Description of Officers and Enlisted Personnel, pp. 132-139.

¹⁰⁵Wattenberg, The Birth Dearth, p. 82.

¹⁰⁶Ibid., p. 83.

Big nations are likely to have a strategic advantage in all of these areas, adds Wattenberg. Modern military technology can also compensate for some degree of demographic inferiority, but "no amount of technical superiority could balance a gross lack of population over a long period of time."¹⁰⁷ Furthermore, population is seen to play an important role in the international political realm, "where not only military power but wealth, are the chips in the games that nations play."¹⁰⁸

Although the U.S. population is not expected to actually decline for another 50 years or more (assuming all goes according to schedule), the "birth dearth" trend could still affect national security over the near future in a variety of ways. A few possible consequences--such as recruiting shortfalls, economic turbulence, and the changing character of military personnel--are treated above. Several other reactions to the "birth dearth" could also affect the nation's defensive capabilities. But the most important consequence, as Wattenberg and others see it, is the overall decline of the West: "In my judgment, the major threat to Western values and the free world concerns the fact that, as the next century progresses, there won't be many free Westerners around to protect and promote those values."¹⁰⁹

In the more immediate future, the U.S. can probably expect to be "besieged with demands from the less developed nations [which have rapid population growth] for readjustments in the distribution of wealth"--a situation, according to an Army report, that could create "a world of increasing civil unrest and terrorism as the rising economic expectations of third world

¹⁰⁷Ibid., p. 82.

¹⁰⁸Ibid., p. 85.

¹⁰⁹Ibid., p. 167.

nations are not met."¹¹⁰ Moreover, the "slow-motion, demographic suicide" in Europe--with a worst-case fertility rate of below 1.3 in West Germany--may cause the Western European nations to seek greater defensive support from the United States. Indeed, defense analysts have questioned how long West Germany can continue to supply 12 military divisions to NATO.¹¹¹ Germany itself has responded to the sharply declining pool of manpower by lengthening the enlistment terms of its soldiers and by participating in joint training exercises with France (an unusual union, considering history).

Some defense thinkers see the European "birth dearth" creating "an illusion that manpower will no longer be important." A shortfall in troops, they say, could then result in a deemphasis of conventional defense in favor of other means, such as nuclear weapons.¹¹²

There is evidence that the economic and technological dominance of the United States has already begun to slip--primarily at the hands of an ally, no less, that has fewer people and an equally low rate of fertility. Consider the following:¹¹³

- o The U.S., which has less than 5 percent of the world's population, produced about 70 percent of the world's scientific information about a decade ago. Today, it's approximately 50 percent; and in ten years it's expected to fall to 30 percent.

¹¹⁰Department of Army, American Soldier, pp. 6-8. Wattenberg (Birth Dearth, p. 44) projects that the Third World population will increase from its current level of 3.7 billion to 8 billion by the middle of the next century.

¹¹¹Alan L. Otten, "Some Thinkers Expect Population to Drop and Trouble to Result," Wall Street Journal, 18 June 1987, pp. 1, 20.

¹¹²Edward Luttwack quoted in "The Birth Dearth Debate," U.S. News & World Report, 22 June 1987, pp. 64-65; and Wattenberg, The Birth Dearth, pp. 93-95.

¹¹³This discussion draws heavily from William Van Dusen Wishard, "The 21st Century Economy," The Futurist, May-June 1987, pp. 23-28.

- o Some Japanese companies are now receiving more U.S. patents than their U.S. competitors. For example: Hitachi has been receiving almost 4 times as many U.S. patents as Texas Instruments; Nissan more than General Motors and more than Ford and Chrysler combined; and Fuji Photo Films more than the venerable American institution of Eastman Kodak.
- o Japan is becoming the world's premier investor and creditor, with "economic and financial clout [that] could eventually rival the power held by Britain in the nineteenth century and the United States after World War II."¹¹⁴ Japan already holds about half of the United States' foreign debt, and Japanese banks have provided over \$200 billion through loans and bond purchases; as well as \$100 billion in loan guarantees and letters of credit to American states, cities, universities, and businesses.

Another trend in international trade is the increasing number of joint ventures and other alliances between companies from separate countries. Rapidly changing technology and industry's need for financial flexibility are largely responsible. Wishard notes that, at one time, foreign dependency for parts or products was unimaginable. Companies were totally independent. The old Ford Motor Company even raised its own sheep to provide the wool for upholstery in its cars. Today, at least half of the parts in a new Ford car are manufactured elsewhere.¹¹⁵

Industry alliances and U.S. dependency on foreign goods have important implications for U.S. security, most directly when foreign-made products become critical components in expensive military equipment and weapons. The potential problems of this practice were dramatized recently when it was rumored that some foreign-made silicon chips, purchased through Korean businesses and used in U.S. weapon systems, had actually originated in the Soviet Union.

¹¹⁴Ibid., p. 25.

¹¹⁵Ibid., p. 27.

Looking Ahead

Barring the outbreak of war or a serious national crisis, it is likely that the All-Volunteer Force will remain all-voluntary. However, keeping the ranks filled with highly qualified people will not be easy, and certain changes will be necessary. The following speculations regarding these changes are offered:

1. Pressures to severely limit or cut defense spending will intensify. Something will have to be sacrificed, and, at first, it will be personnel-related outlays. Eventually, the adverse effects of these cuts will be seen in recruiting and retention. Given the prospect of either returning to a peacetime draft (with substantial reductions in military pay and benefits) or raising the budget for defense, the American people and their representatives will choose the latter. This will result in a new tax hike, added to the previous increases in taxes arising from efforts to reduce the federal deficit.

2. Resources for defense will be the big issue of the future: How much defense do we really need and how can we pay for it? As we struggle to answer these questions, the composition of the Armed Forces will be changing. The "graying" of the military will continue, reflecting trends in the general population. A greater effort will be made to manage the force in this respect, as older, more experienced people are used to fill vacancies in the supply of younger manpower. Manpower planners will also seek to increase the number of female personnel--leading first to expanded opportunities for women in combat support jobs, and then to a complete removal of the ban on assigning women to combat.¹¹⁶ Steps will also be taken to enhance the opportunities of racial/ethnic minorities--resulting in refined techniques for screening applicants (including those with limited English language skills), for placing new recruits in military jobs, and for promoting careerists. Hispanic-Americans will be targeted for enlistment, and programs will be developed to take full advantage of their bilingual abilities. Entry standards and retention policies will be modified in experimental ways, as the military attempts to remodel its traditional pool of "qualified and available" persons.

¹¹⁶Legislation that would allow women to serve in more combat support jobs is currently being considered by Congress. The Senate bill would open to women 140,000 jobs in the Army, 14,000 shipboard billets in the Navy, and about 4,000 Air Force jobs. See Rick Maze, "Dickenson Wants Expanded Roles for Women," Navy Times, 20 July 1987, p. 41; and Sharon B. Young, "Bill Proposes Expansion of Women's Role," Navy Times, 9 March 1987.

3. Retention of highly skilled people will become a serious problem, requiring innovative programs that improve the quality of military life and satisfy the needs of military families. More effort and money will be devoted to this area. In addition, proposals to alter the pay structure of the military will be considered, as the Services begin to lose personnel with desired abilities and experience in technical areas. The need to compete with private industry may eventually result in a pay system that distinguishes between people in different occupations, abandoning the time-honored tenet that people with the same rank and seniority make the same contribution to national security.

Other changes may also be required in the structure of the force, particularly with respect to the reserve components, if the size of the active duty military is reduced. Moreover, it is likely that the shared problem of a "birth dearth" among the Western allied nations will act to tighten existing bonds and forge a stronger sense of shared responsibility for self-defense.

It has been observed that predictions of the world to come usually dwell on the gloomy side of the picture. This paper is no exception to the norm. Most of what is mentioned here will cause problems, some of which will be painful, but all of which can be overcome. The good news is that many problems lead to changes that help to create a better world in which to live. This is what we hope for. This is what we expect.

A Note on the Canadian Experience

The demographic trends in Canada are similar to those in the United States. For example, like the United States, Canada is experiencing a "birth dearth"; its population is aging; women are joining the labor force in growing numbers; and, in this nation of about 26 million people, immigration accounts for one-third of total annual growth.¹¹⁷ The immigration factor, though comparable to the U.S., also has a unique Canadian character:

While French cultural representation is remaining relatively stable, the percentage of those reporting British ethnicity has shrunk. Immigration has changed the composition of society so that the Canadian mosaic now includes a significantly greater proportion of visible minorities.¹¹⁸

The Canadian population is expected to peak at just under 29 million around the year 2010 and then start to decline. The median age of the Canadian population is expected to be above 40 in that year, higher than the median age of 38.5 in the United States. Canadian labor force growth rates are falling.¹¹⁹

The Canadian Forces, which have about 86,000 members, are also undergoing changes much like those occurring in the U.S. military. The Canadian Forces are enrolling proportionately more twenty-five year olds and fewer persons between 17 and 20 years. At the same time, the overall education level of the military is increasing--influenced by rising levels in the general population and by advances in military technology that have brought about higher education and aptitude standards for entry (especially in mathematics and science).¹²⁰

¹¹⁷From Current Demographic Analysis: Report on the Demographic Situation in Canada, 1983, Processed, n.d.

¹¹⁸DPDS, "Current and Future Trends That Could Influence CF Personnel Policies and Personnel Management Structures," January 1986, Processed, p. 2.

¹¹⁹DPDS, "Task Project: Demographic Trends," No. 5, June 1986, Processed.

¹²⁰Ibid., para. 28 and 29.

Some manpower analysts believe that social and demographic trends may create "pressure from a number of sources to bring [Canadian Forces'] policies and practices more in line with the social mood and aspirations of the country."¹²¹ It is also anticipated that changes in the traditional recruiting base--from "uneducated, white 17-24 year old, physically-fit males" to a wider pool including formerly underrepresented or excluded groups--could have "far-reaching ramifications for both the composition and culture of the [military]."¹²²

Indeed, a major shift in the composition of the Canadian military is signalled by the recent decision to test the effects of placing women in combat jobs. Already, Canada has eliminated gender restrictions in all of its Air Force jobs, and plans are underway to place women in combat-type jobs within the Army and the Navy on a trial basis. The motivation for conducting the test, which could last up to four years, is not directly related to the problem of a shrinking manpower pool.¹²³ "The fundamental principle involved here," the Canadian Defence Minister has stated, "is that every Canadian citizen has equal rights and responsibilities when it comes to the defense of this country."¹²⁴

This is a very unusual move, as a top Canadian military official points out, since most military systems are the dinosaurs of society when it comes to social issues.¹²⁵ The results of these experimental combat programs, monitored by the Combat-Related Employment of Women Trials Office, will certainly be watched with great interest by Canada's neighbor to the south.

¹²¹DPDS, "Current and Future Trends," p. 5.

¹²²Ibid.

¹²³Sharon B. Young, "Combat Slots Studied for Canadian Women," Navy Times, 25 May 1987.

¹²⁴Joseph Owen, "Canada to Test Women in Combat Jobs," European Stars and Stripes, 13 July 1987, p. 5.

¹²⁵Young, "Combat Slots."

Distribution List

| <u>Agency</u> | <u>No. of copies</u> |
|--|----------------------|
| Defense Technical Information Center Cameron Station Alexandria, VA 22314 | 2 |
| Dudley Knox Library, Code 0142 Naval Postgraduate School Monterey, CA 93943 | 2 |
| Office of Research Administration Code 012 Naval Postgraduate School Monterey, CA 93943 | 1 |
| Library, Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268 | 1 |
| Department of Administrative Sciences Library Code 54 Naval Postgraduate School Monterey, CA 93943 | 1 |
| Professor Mark J. Eitelberg Code 54Eb Department of Administrative Sciences Naval Postgraduate School Monterey, CA 93943 | 20 |

DUDLEY KNOX LIBRARY



3 2768 00396375 2